

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application.

1. (Previously Presented) A microporous PTFE membrane comprising:
a first surface and a second surface and a thickness and bulk defined by the first and second surfaces, the microporous PTFE membrane modified by subjecting the microporous PTFE membrane to non-coherent broadband UV irradiation while pores of the membrane are impregnated with a liquid, the membrane having a critical wetting surface tension (CWST) of at least about 40 dynes/cm ($.40 \text{ erg/mm}^2$) through the thickness and bulk of the microporous PTFE membrane, a wetting/dewetting ratio of at least about .7 for 2 or more cycles, and wherein the first and second surfaces each have a fluorine/carbon (F/C) ratio of about 1.2 or more and an oxygen/carbon (O/C) ratio in the range of from about 0.01 to about 0.15.
2. (Previously Presented) The microporous PTFE membrane according to claim 1 having a low level of extractables.
3. (Cancelled)
4. (Previously Presented) The microporous PTFE membrane of claim 6, having a CWST of at least about 40 dynes/cm ($.40 \text{ erg/mm}^2$).
5. (Previously Presented) The microporous PTFE membrane of claim 1, having a water bubble point of at least about 33 psi.
6. (Previously Presented) A microporous PTFE membrane comprising:
a first surface and a second surface and a thickness defined by the first and second surfaces, the microporous PTFE membrane modified by subjecting the microporous PTFE membrane to non-coherent broadband UV irradiation while pores of the membrane are impregnated with a liquid, the membrane having a CWST of at least 26 dynes/cm ($.26 \text{ erg/mm}^2$) through the thickness and bulk of the microporous PTFE membrane, and a wetting/dewetting ratio of at least about .7 for 2 or more cycles, wherein the microporous

PTFE membrane is free of a coating and wherein the first and second surfaces each have a fluorine/carbon (F/C) ratio of about 1.2 or more and an oxygen/carbon (O/C) ratio in the range of from about 0.01 to about 0.15.

7. (Previously Presented) The PTFE membrane of claim 1, having a nominal pore size in the range of from about 0.02 to about 0.1 microns.

8. (Previously Presented) The PTFE membrane of claim 1, having a CWST of at least about 45 dynes/cm ($.45 \text{ erg/mm}^2$) through the thickness of the membrane.

9. (Previously Presented) The PTFE membrane of claim 8, having a CWST of at least about 58 dynes/cm ($.58 \text{ erg/mm}^2$).

10. (Previously Presented) The PTFE membrane of claim 2, having a water bubble point of at least about 45 psi (about 310 kPa).

11. (Previously Presented) The PTFE membrane of claim 6, having a water bubble point of at least about 75 psi (about 516.8 kPa).

12. (Cancelled)

13. (Cancelled)

14. (Previously Presented) The PTFE membrane of claim 1, which resists dewetting when contacted with hot water as a degassing fluid.

15. (Cancelled)

16. (Previously Presented) The PTFE membrane of claim 2, having less than about 100 ppb extractable matter.

17. (Previously Presented) The PTFE membrane of claim 2, having less than about 30 ppb metal extractable matter.

18. (Previously Presented) The PTFE membrane of claim 6, having less than about 15 ppb metal extractable matter.

19.-31. (Cancelled)

32. (Previously Presented) A process for treating a fluid comprising contacting the membrane claim 1 with the fluid for treating and recovering the treated fluid.

33. (Original) The process of claim 32, wherein the fluid for treating is a degassing fluid.

34. (Previously Presented) The PTFE membrane of claim 1, wherein the membrane is free of a coating.

35. (Previously Presented) The PTFE membrane of claim 1, modified by subjecting the membrane to non-coherent broadband UV irradiation while pores of the membrane are impregnated with a liquid selected from the group consisting of water, alcohols, hydrogen peroxide, sodium sulfite, ammonium sulfate, ammonium sulfite, sodium aluminate, copper sulfate, boric acid, hydrochloric acid, and nitric acid.

36. (Previously Presented) The PTFE membrane of claim 6, modified by subjecting the membrane to non-coherent broadband UV irradiation while pores of the membrane are impregnated with a liquid selected from the group consisting of water, alcohols, hydrogen peroxide, sodium sulfite, ammonium sulfate, ammonium sulfite, sodium aluminate, copper sulfate, boric acid, hydrochloric acid, and nitric acid.

37. (New) The PTFE membrane of claim 6, having a CWST of at least about 30 dynes/cm ($.30 \text{ erg/mm}^2$) through the thickness and bulk of the membrane.

38. (New) The PTFE membrane of claim 1, wherein the surfaces each have an F/C ratio of at least about 1.5.

39. (New) The PTFE membrane of claim 6, wherein the surfaces each have an F/C ratio of at least about 1.5.

40. (New) The PTFE membrane of claim 37, wherein the surfaces each have an F/C ratio of at least about 1.5.

41. (New) The PTFE membrane of claim 1, having a zeta potential in the range of from about -3 mV to about -11 mV at a pH in the range of from about 4 to about 9.

42. (New) The PTFE membrane of claim 6, having a zeta potential in the range of from about -3 mV to about -11 mV at a pH in the range of from about 4 to about 9.

43. (New) The PTFE membrane of claim 37, having a zeta potential in the range of from about -3 mV to about -11 mV at a pH in the range of from about 4 to about 9.

44. (New) The PTFE membrane of claim 38, having a zeta potential in the range of from about -3 mV to about -11 mV at a pH in the range of from about 4 to about 9.

45. (New) The PTFE membrane of claim 39, having a zeta potential in the range of from about -3 mV to about -11 mV at a pH in the range of from about 4 to about 9.

46. (New) The PTFE membrane of claim 40, having a zeta potential in the range of from about -3 mV to about -11 mV at a pH in the range of from about 4 to about 9.